

**UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA**

Geospan Corporation,

Plaintiff,

v.

**MEMORANDUM OPINION
AND ORDER**

Civil No. 08-816 ADM/JSM

Pictometry International Corporation,

Defendant.

David T. Schultz, Esq., Michael C. McCarthy, Esq., and Keiko L. Sugisaka, Esq., Maslon, Edelman, Borman & Brand, LLP, Minneapolis, MN, on behalf of Plaintiff.

Joseph P. Titterington, Esq., and D. Ward Hobson, Esq., Dunlap Coddling, PC, Oklahoma City, OK, and Rachel K. Zimmerman, Esq., Merchant & Gould, PC, Minneapolis, MN, on behalf of Defendant.

I. INTRODUCTION

On February 2, 2011, the undersigned United States District Judge heard oral argument on Plaintiff Geospan Corporation's ("Geospan") Motion for Summary Judgment [Docket No. 182] and Defendant Pictometry International Corporation's ("Pictometry") Motion for Summary Judgment [Docket No. 185]. Geospan alleges that Pictometry infringed claims 1, 3, 4, 7, and 16 of U.S. Patent No. 5,633,946 ("the '946 Patent"). Pictometry denies the infringement allegations and counterclaims for a declaratory judgment of non-infringement, invalidity, and unenforceability of the '946 Patent. For the reasons set forth below, Geospan's motion is granted in part and denied in part, and Pictometry's motion is granted in part and denied in part.

II. BACKGROUND

The '946 Patent describes a method for collecting and processing visual and spatial position information for the purpose of forming a geographic information database. Compl.

[Docket No. 1], Ex. A ('946 Patent) at [57]. The information in the database can then be used to accurately determine the spatial position of an object seen in the collected visual information.

Id. The science of obtaining accurate information about physical objects through interpretation of photographic or visual images is known as photogrammetry. See Sugisaka Decl. [Docket No. 195] Ex. 2, Amended Expert Report of Dr. Ronald Briggs ("Briggs Report") ¶ 7.

Defendant Pictometry specializes in aerial photogrammetry, which uses images taken from an airplane. Schultz Decl. [Docket No. 189] ¶ 2. Plaintiff Geospan's business is primarily ground-based photogrammetry but it has recently begun expanding into aerial photogrammetry.

The '946 Patent was filed in 1995. '946 Patent at [22]. At that time, the predominate technologies used in photogrammetry for determining locations of objects were stereo systems. Briggs Report ¶ 10. Stereo systems consist of cameras with static overlapping fields of vision. Id. The location relative to the cameras of any object shown in the overlapping fields of vision can be determined through a mathematical process known as triangulation. Triangulation can determine the relative position of an object captured by two cameras if the distance between the cameras is known. Briggs Report ¶¶ 10-11; Hobson Decl. [Docket No. 223], Ex. 1, Amended Expert Report of Dana Slaymaker ("Slaymaker Report") ¶¶ 14-26. In stereo systems, the distance is known because the cameras are a constant, fixed distance apart. If the cameras' absolute location is known, through the use of global positioning system ("GPS") technology for example, the absolute position of the object can then be extrapolated.

Relevant prior art in use at the time of the 1995 application for the '946 Patent includes a surveying vehicle known as the GeoVAN and several articles: "Digital Mapping on the Ground and from the Air" ("Bossler I"), The GPS/Imaging/GIS Project" ("Bossler II), "VIASAT - A

Mobile Highway Survey System of High Accuracy (“VIASAT”), “Multiple-Lens Aerial Cameras in Mapping” (“MLC”), and “Elements of Photogrammetry” (“EOP”). The GeoVAN was a van specially equipped with surveying technology. Titterington Decl. [Docket No. 188] Ex. 7. The GeoVAN was equipped with computer mapping systems, GPS, navigation systems, data storage devices, systems monitors, and video cameras. Id. The GeoVAN used four pairs of stereo video cameras, a total of eight cameras, facing four different directions. Titterington Decl. Ex. 6. The GeoVAN was released in July 1992 and was sold commercially in April 1993. Titterington Decl. Exs. 6, 9. The Bossler articles describe work at Ohio State University related to surveying vehicles. See Slaymaker Report Attachments. Notably, the Bossler articles describe using stereo systems on moving platforms equipped with GPS technology. Id. Bossler II also references using sequences of photos to triangulate the position of a van that has lost GPS connection. Likewise, VIASAT describes an early surveying system using a vehicle, GPS, and a cluster of stereo cameras. Id. MLC describes how to conduct aerial photographic mapping. Id. EOP describes the mathematics used in photogrammetry. Id.

The ‘946 Patent was an improvement in the field of photogrammetry by creating a method that allows the use of non-stereo cameras. The ‘946 Patent describes a method of using GPS, along with sensors that calculate the orientation of video cameras mounted on a moving platform, to determine the location of an object shown in *any* two images, not just images obtained from a pair of stereo cameras. The ‘946 Patent also describes a method of updating a geographical database with street segment information, including a method for calculating the offset of a vehicle from the center of the street using images from one camera mounted on either the front or back of the vehicle.

Pictometry allegedly infringes the patent through its aerial photogrammetry process. Pictometry's technology uses what is known as "single ray projection." Schultz Decl. ¶ 7. Single ray projection allows the location of an object in a single image to be mathematically determined based on the internal geometry of the camera capturing the image, the position and orientation of that camera, and the distance from the camera to the ground. Schultz Decl. ¶ 11. Pictometry captures images from the air using airplanes and calculates the distance from the ground using a digital elevation model. Schultz Decl. ¶¶ 12-13. As the images are captured, their geographical location is determined using single ray projection. Schultz Decl. ¶¶ 15-17.

After images are captured, Pictometry engages in a process known as "tie pointing." Tie pointing consists of comparing an object's calculated geographic locations from multiple images. Schultz Decl. ¶¶ 22-24. If the calculated locations are further apart than a predetermined error level, an error has occurred and Pictometry attempts to determine the source by reprocessing data and recapturing images if necessary. Schultz Decl. ¶¶ 25-27. Pictometry sorts its data into "sorties" consisting of 4,250 images on average. Schultz Decl. ¶ 19. The tie pointing process is conducted on up to eight groupings, consisting of an average of seven images, from each sortie. Schultz Decl. ¶ 22.

After the Court held a Markman hearing, an Order [Docket No. 169] dated August 4, 2010 issued and construed claim language for "moving platform" and "video camera." The current motions for summary judgment followed.

III. DISCUSSION

A. Standard of Review

Federal Rule of Civil Procedure 56(c) provides that summary judgment shall issue "if the

pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(c); see Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 587 (1986); Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 252 (1986); Celotex Corp. v. Catrett, 477 U.S. 317, 323 (1986). On a motion for summary judgment, the Court views the evidence in the light most favorable to the nonmoving party. Ludwig v. Anderson, 54 F.3d 465, 470 (8th Cir. 1995). The nonmoving party may not “rest on mere allegations or denials, but must demonstrate on the record the existence of specific facts which create a genuine issue for trial.” Krenik v. County of Le Sueur, 47 F.3d 953, 957 (8th Cir. 1995).

B. Infringement

1. Standard

“To establish infringement, every limitation set forth in a patent claim must be found in an accused product or process exactly or by a substantial equivalent.” Laitram Corp. v. Rexnord, Inc., 939 F.2d 1533, 1535 (Fed. Cir. 1991). “The patentee bears the burden of proving infringement by a preponderance of the evidence.” Id. Patent infringement analysis entails two steps: (1) claims must be construed and (2) construed claims must be compared to the allegedly infringing product or process. Gen. Mills, Inc. v. Hunt-Wesson, Inc., 103 F.3d 978, 981 (Fed. Cir. 1997). Infringement is a question of fact; however, where no factual dispute exists concerning the operation of an allegedly infringing product or process, the question of infringement collapses into claim construction and is amenable to summary judgment. Id. at 983.

Claim construction is a matter of law. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995), aff'd, 517 U.S. 370 (1996). In construing claims, courts should look first to intrinsic evidence, which includes the claims, the specification, and the prosecution history. Vitrionics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). Claim terms are “generally given their ordinary and customary meaning,” which is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” Phillips v. AWH Corp., 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (quotation and citations omitted). The specification is usually “dispositive; it is the single best guide to the meaning of a disputed term.” Vitrionics, 90 F.3d at 1582. Courts are nonetheless cautioned not to import limitations from the specification into the claims. Phillips, 415 F.3d at 1323; The Laitram Corp. v. NEC Corp., 163 F.3d 1342, 1347 (Fed. Cir. 1998).

2. Claims 1, 3, 4, and 7

Claim 1 contains five elements. See ‘946 Patent col.18 ll.35-55. Pictometry concedes that it infringes the first four elements. The fifth element, however, reads: “determining location of an object shown in at least two of the recorded non-coplanar video images obtained at different times based upon a location of the object in each of those recorded images and the associated spatial positions and orientations of the video cameras which produced those images.” ‘946 Patent col.18 ll.50-55. The process Pictometry uses in conducting aerial photogrammetry is largely undisputed, and as such, the infringement analysis turns on the construction of the terms of the fifth element of Claim 1.

a. Claim Construction

Pictometry does not infringe the final element of Claim 1 because it does not determine location of an object based upon the location of the object in more than one image. Pictometry determines the location of objects through single ray projection, which is not based upon the location of the object in multiple images but instead uses data concerning: (i) the location of the object in a single image, (ii) the geometry and orientation of the camera producing the image, and (iii) a mathematical representation of the ground. Schultz Decl. ¶¶ 7-11.

Geospan argues that Claim 1 only requires that the object be *shown* in multiple images, it need not use the object's position in each image. This reading, however, is contrary to the plain language of the claim. The claim clearly states that the location of the object is determined “*based upon* a location of the object in each of those recorded images and the associated spatial positions and orientations of the video cameras” ‘946 Patent col. 18 ll.52-54 (emphasis added). To require only that the images be shown in at least two images would render the phrase “based upon” entirely meaningless, and therefore such a position is untenable. See Merck & Co. v. Teva Pharms. USA, Inc., 395 F.3d 1364, 1372 (Fed. Cir. 2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.”). The claim language requires that the location of an object be determined “based upon” *both* the object's location in multiple images and the position of the cameras producing the images.

While the plain language of Claim 1 is sufficient to convince the Court to construe that claim as requiring an object's location be determined based upon the object's location in more than one image, the “street centerline determination” method will also be discussed. Geospan argues that Claim 1 cannot be limited to using two images to determine location because the

patent specification discloses a method of using only one image to determine location, referred to in the patent as the “street centerline determination.” See ‘946 Patent fig. 8. Indeed, the patent specification clearly shows how to determine the relative location of a street centerline based on its position in only one image using the same mathematical calculation that Pictometry uses to determine object locations in its aerial photogrammetry process.

However, patent claims are not to be read in isolation, but rather must be read in the context of the patent as a whole. See Markman v. Westview Instruments, Inc., 517 U.S. 370, 389 (1996) (“[A] term can be defined only in a way that comports with the instrument as a whole.”). It is clear from reading the patent as a whole that the “determining location” language of Claim 1 does not refer to the “street centerline determination” described in the patent specification. Compare ‘946 Patent col.10 ll.27-60 (discussing how to calculate vehicle offset from centerline of street) with ‘946 Patent col.15 ll.54-67 (discussing how to calculate the “absolute position” of a reference point in multiple images using triangulation). The street centerline determination process is related only to the accurate mapping of street segments, a separate method described in the patent. When the ‘946 Patent is read as a whole, it is clear that the street centerline determination relates to Claims 9, 10, and 11, which discuss the mapping of street segments, not the method for “determining location” in Claim 1.

This reading of Claim 1 is bolstered by the prosecution history of the patent. During prosecution, Geospan asserted that its claimed invention “is capable of *using* two images taken from totally different vantage points” and that it improved over prior art by “mak[ing] *use* of at least two non-coplanar video images” Titterington Decl. Ex. 3 at 7-8 (emphases added).

Finally, this construction adheres to the canon of claim construction that favors validity.

See Process Control Corp. v. HydReclaim Corp., 190 F.3d 1350, 1356 (Fed. Cir. 1999) (“[W]e should attempt to construe the claims to preserve their validity . . .”). If the Court were to accept Geospan’s construction that only one image is used to determine location, as shown in the street centerline determination, then the patent’s validity would be drawn into question. Because the patent does not teach how to determine the distance from the ground to the camera when the camera is not mounted on a street vehicle, such as the case in aerial photogrammetry, the patent’s validity under the proposed construction must necessarily be questioned. The distance from the ground is essential to allowing one skilled in the art to use one camera to determine location. See ‘946 Patent col.10 ll.65-66 (“A known vector D extends . . . to the center of the street . . .”). Pictometry is able to use one camera in its aerial photogrammetry process because it incorporates a mathematical model of the ground it surveys. See Schultz Decl. ¶ 13. The ‘946 Patent, however, lacks a description of a method for determining the distance from the camera to the ground when the camera is on a moving platform that is not directly above the street. Therefore, the ‘946 Patent would not enable a person skilled in the art to implement the invention without experimenting with methods to determine that distance. As such, Geospan’s proposed construction would cast doubt on the validity of the patent.

Geospan argues that it did not need to specify how to use a model of the ground or determine the location of an object beyond the centerline of a street because those applications would have been apparent to one skilled in the art. This argument is unpersuasive. While the parties’ experts agree that the knowledge for creating a ground model existed at the time of the patent, the record is wholly devoid of any evidence that a person skilled in the art would have had any reason to apply that knowledge to the street centerline determination. For example, Dr.

Brigg's expert report, submitted by Geospan, states that "at the time that this patent was issued . . . a person of ordinary skill in the art . . . would know that the height above the ground could be determined through the GPS measurements . . . together with a Digital Terrain Model"

Briggs Report ¶ 35. Wholly lacking is any explanation of *why* a person skilled in the art would think to incorporate a digital terrain model when the patent specification does not disclose the use of any such model. The patent does not cover everything that a person skilled in the art could have known in hindsight, but only what a person skilled in the art would have known based on the specification without undue experimentation. With respect to experimentation, the patent specification must provide "a reasonable amount of guidance." Johns Hopkins Univ. v. Cellpro, Inc., 152 F.3d 1342, 1360 (Fed. Cir. 1998). The complete absence of a mathematical ground model in the specification leaves a person skilled in the art short of "a reasonable amount of guidance." Therefore, the street centerline determination could not be applied in other contexts without undue experimentation, and Geospan's proposed construction is rejected.

b. Pictometry does not infringe

Having construed the language of the claim, the infringement analysis now turns on the undisputed facts regarding Pictometry's aerial photogrammetry process. Given the Court's claim construction, Pictometry infringes Claim 1 only if its tie pointing process determines location of an object based on the object's location in the multiple images used in tie pointing.

Pictometry's tie pointing process does not infringe Claim 1. The undisputed facts show that the location of an object, including its longitude, latitude, and elevation, was already determined by single ray projection prior to the beginning of the tie pointing process. Furthermore, no evidence of record demonstrates that tie pointing in any way factors into the

ultimate determined location of an object. Tie pointing is merely a quality control measure; if error rates are too high, the images are recaptured and locations redetermined. See Schultz Decl.

¶ 27. If the tie pointing process factored into the ultimate determination of the longitude, latitude, and elevation coordinates of an object, then perhaps it could be said that Pictometry determined location “based upon” an object’s location in multiple images. However, Geospan, which bears the burden of proof, can identify no specific facts that would show that tie pointing is anything more than a quality control measure used to determine whether or not to keep a sortie of data.

In summary, Pictometry does not determine location of an object “based upon” a location of the object in multiple images. The undisputed facts of record show that Pictometry determines location based only upon the location of an object in a single image and its mathematical model of the ground through the method known as single ray projection. Therefore, as a matter of law Pictometry does not infringe Claim 1.

Further, because Claims 3, 4, and 7 are dependent on Claim 1, Pictometry does not infringe those claims as a matter of law. See Teledyne McCormick Selph v. United States, 558 F.2d 1000, 1004 (Ct. Cl. 1977) (“It . . . has long been established that a dependent claim . . . cannot be infringed unless the accused device is also covered by the independent claim . . .”). With respect to infringement of Claim 1, Pictometry’s motion is granted, and Geospan’s motion is denied.

3. Claim 16

As with Claim 1, Claim 16 is comprised of several steps, and Pictometry concedes that it infringes all except the final step. Pictometry argues that it does not infringe the final step of

“determining location of an object shown in at least two of the recorded non-coplanar video images obtained from different ones of the first, second, third, and fourth video cameras.” ‘946 Patent col.20 ll.47-50. Unlike Claim 1, this claim does not recite the “based upon” language. Geospan argues that this claim merely requires that the object be shown in at least two images, which Pictometry disputes. Therefore, further claim construction is required.

As used in Claim 16, “determining location” means determining location based on the location of an object in multiple images coming from different cameras. The specification and prosecution history establish that the ‘946 Patent teaches how to use triangulation to determine the geographic location of an object shown in multiple “non-coplanar” images. ‘946 Patent col.15 ll.54-61 (teaching how to triangulate reference points and known position of cameras to determine absolute position of chosen point). The images are “non-coplanar” because either (1) they came from the same camera at different times or (2) came from two different, non-stereo cameras. See Titterington Decl. Ex. 3 at 7 (“[T]he present invention makes use of non-coplanar video images obtained at different times (typically from different cameras).”). Therefore, Claim 1 with its reference to images “taken at different times” refers to the former situation, and Claim 16, with its references to multiple cameras, refers to the latter. Reading Claim 16 in light of Claim 1 is bolstered by Geospan’s own expert report. Geospan’s expert states “Claim 16 is largely a concatenation of Claim 1 and Claim 7.” Briggs Report ¶ 43.

Further, the use of the word “non-coplanar” would be surplusage if use of only one image were required. A single camera does not have another reference point from which it can be “non-coplanar.” Indeed, the history of the ‘946 Patent makes clear that the term “non-coplanar” was used to distinguish the ‘946 Patent from the traditional stereo systems. See Sugisaka Decl.

Ex. 1 at GEO002586-88 (distinguishing invention for Bossler II on the basis that cameras in invention were non-stereo). Furthermore, the “street centerline determination” does not refer to a method for determining the location of an object using only one image but rather refers to calculating the offset of a vehicle from the center of the street as required by other claims not at issue, as discussed above.

Therefore, Claim 16, like Claim 1, requires the location of an object to be determined based upon the location of an object in multiple images. Claim 16 is different, however, in that it requires that images come from different, “non-coplanar” cameras. As with Claim 1, then, Pictometry’s method of using single ray projection to determine location from a single image does not infringe this claim.

Geospan seeks summary judgment with respect to infringement of Claim 16 and that motion is denied. Unlike Claim 1, where both parties expressly moved for summary judgment, it is unclear whether Pictometry also seeks summary judgment regarding Claim 16. The briefing in the case makes clear that Pictometry has consistently denied it has infringed Claim 16 as a matter of law and has taken the position that summary judgment in its favor is appropriate. Pictometry has affirmatively filed a Counterclaim asserting two counts, one for declaratory judgment of non-infringement generally and one for invalidity generally. Whether Pictometry specifically moved for summary judgment with respect to Geospan’s Complaint, its own Counterclaims, or both, and whether it did so in complete or partial fashion is rendered academic, however, because courts may grant summary judgment *sua sponte* so long as the losing party has notice and an opportunity to respond. Global Petromarine v. G.T. Sales & Mfg., Inc., 577 F.3d 839, 843 (8th Cir. 2009). Here, the submissions of the parties thoroughly briefed

the issue of whether Claim 16 was infringed as a matter of law. Therefore, summary judgment in favor of Pictometry with respect to the claims against it and its declaratory judgment claim is granted.

C. Invalidity

In its Answer, Pictometry asserted a counterclaim for a declaratory judgment that the '946 Patent is invalid because Claims 1 and 16 are invalid. Both parties now move for summary judgment on that counterclaim. A patent is presumed valid, and each claim is presumed valid independently of the validity of other claims. 35 U.S.C. § 282. The party asserting invalidity must prove the facts establishing invalidity by clear and convincing evidence. Pfizer, Inc. v. Apotex, Inc., 480 F.3d 1348, 1359 (Fed. Cir. 2007).

1. Claim 1

Pictometry argues that Claim 1 is invalid because it was anticipated or made obvious by Bossler II. A patent is invalid if the patented invention was described in a printed publication more than one year prior to the date of the patent application. See 35 U.S.C. § 102(b). The application for the '946 Patent was filed in November 1995. Bossler II was published in December 1991. Therefore, if Bossler II describes Claim 1, it is invalid under § 102(b). However, for the patent to be invalid, Bossler II must describe each limitation of Claim 1. See Netscape Commc'ns Corp. v. Konrad, 295 F.3d 1315, 1321 (Fed. Cir. 2002).

Not every limitation of Claim 1 is present in Bossler II, and therefore Claim 1 is not invalid. Claim 1 requires recording "non-coplanar video images," associating with those images the instantaneous spatial position and orientation of the video camera producing the image, and determining location of an object based upon its location in "non-coplanar" images. Bossler II

describes none of these limitations.

First, Bossler II describes recording only stereo, not “non-coplanar,” images. Indeed, during prosecution, Geospan amended its claims to distinguish Bossler II on the basis of Bossler’s reliance on stereo images. Sugisaka Decl. Ex. 1 at GEO002585.

Second, Bossler II does not describe how to associate any orientation or position data from cameras with the images the camera produces. Pictometry argues that Bossler II does in fact teach how to associate such data, and points to a chart of roll, pitch, and yaw data to corroborate its reading. However, lacking from Bossler II is a description of how to *associate* the chart data with the images produced at the time they are produced.

Finally, Bossler II also lacks any description of how to determine location based upon non-coplanar images and associated camera position and orientation. Bossler II was limited to using traditional stereo photogrammetry to determine object locations. Pictometry argues that Bossler II was not entirely limited to traditional stereo photogrammetry because it includes a method for using sequential images, which are “non-coplanar.” However, Bossler II only teaches how to determine the location of a reference point in a sequence of at least two stereo *pairs* of images when the GPS location data fails, not *any* two images as taught by the ‘946 Patent. Further, to the extent Bossler II teaches how to use triangulation with non-stereo images, they are not *any* two images as claimed in the ‘946 Patent because Bossler II requires the images to be taken sequentially. Given these distinctions, it has not been shown by clear and convincing evidence that Bossler II anticipates Claim 1 of the patent. Summary judgment in favor of Pictometry is denied and summary judgment in favor of Geospan is granted.

2. Claim 16

Pictometry argues that Claim 16 is invalid for failure to meet the written description and enablement requirements of 35 U.S.C. 112, ¶ 1, as obvious or anticipated by Bossler I and Bossler II, as obvious or anticipated by a combination of other prior art, or as being embodied by the GeoVAN. Each argument is considered in turn below.

a. Enablement

An essential element of patent law is the requirement that the patent specification describe the invention in a manner sufficient to allow one skilled in the art to recreate the invention. 35 U.S.C. 112, ¶ 1. This requirement has been construed to have two elements: (1) it must enable a person of skill in the art to make and use the full scope of the invention without undue experimentation and (2) it must describe the invention sufficiently to convey that the patentee had possession of the claimed invention at the time of the application. LizardTech, Inc. v. Earth Res. Mapping, Inc., 424 F.3d 1336, 1344-45 (Fed. Cir. 2005).

With respect to enablement, the parties' arguments largely focus on whether the street centerline determination is sufficient to allow one skilled in the art to use a single image to determine the location of an object in the context of aerial photogrammetry. However, as discussed above, the Court has construed both Claim 1 and Claim 16 to require that location be determined based upon an object's location in more than one image. Therefore, the question that must be answered with respect to validity, is whether the specification would allow one skilled in the art to determine location of an object based on that object's location in multiple images produced by "non-coplanar" cameras.

The specification adequately enables the invention. The patent specification discusses

how the location of a single chosen reference point can be determined by triangulation when the location and orientation of the cameras capturing images of the reference point are known. ‘946 Patent cols.15-16. One skilled in the art would recognize how to use this method for any set of cameras with known location and orientation, whether on ground or from the air. Therefore, Pictometry has not shown by clear and convincing evidence that Claim 16 is invalid due to lack of enablement.

b. Anticipation by Bossler I and Bossler II

As discussed above, the Court has construed the language of Claim 16 to require the use of at least two images obtained from different cameras. As such, Pictometry’s arguments related to Bossler I and Bossler II, which depend on Geospan’s proffered claim construction, are inapplicable. As discussed with respect to Claim 1 above, Bossler I and Bossler II do not teach how to use “non-coplanar” images to triangulate position, they teach only traditional stereo photogrammetry, and therefore do not invalidate Claim 16.

c. GeoVAN

Pictometry also argues that claim 16 is invalid because the GeoVAN was a literal embodiment of the claim. To prevail, Pictometry must show by clear and convincing evidence that the GeoVAN was the literal embodiment of all limitations of Claim 16. Dana Corp. v. Am. Axle & Mfg., Inc., 279 F.3d 1372, 1375 (Fed. Cir. 2002) (citing Scaltech Inc. v. Retec/Tetra, L.L.C., 178 F.3d 1378, 1383 (Fed. Cir. 1999)). This Pictometry cannot do. The GeoVAN does not embody the “non-coplanar” requirements of Claim 16. The GeoVAN utilized only stereo pairs of images. Furthermore, contrary to Pictometry’s characterization, the GeoVAN lacked any method for collecting the required orientation data of the cameras mounted on it. The

GeoVAN used only GPS receivers to determine orientation of the vehicle; this does not allow collection of data associated with camera roll, pitch or yaw, i.e. orientation of the *cameras*. Therefore, Pictometry has not shown by clear and convincing evidence that the GeoVAN was the literal embodiment of Claim 16.

d. Anticipation by other prior art

In addition to the Bossler references and the GeoVAN, Pictometry argues that several other prior art references either anticipated or made obvious Claim 16. These references are VIASAT, MLC, and EOP. These references, however, all rely on traditional, stereo photogrammetry.

Claim 16 requires “recording a sequence of non-coplanar video images.” ‘946 Patent col.20 l.36. The key inventive aspect of the ‘946 Patent and Claim 16 was the use of non-stereo images. Contrary to Pictometry’s characterization, all the prior art references rely on stereo photogrammetry. Further, to the extent that Pictometry argues that “non-coplanar” surveying was somehow made obvious by the use of multiple cameras, that position is unpersuasive as Pictometry offers no apparent reason for recognizing the “non-coplanar” capabilities of the prior art. See KSR Intern. Co. v. Teleflex Inc., 550 U.S. 398, 418 (2007) (“[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.”). Therefore, because the prior art does not perform the claim limitations of recording non-coplanar images, or determining location from non-coplanar images, the prior art does not invalidate Claim 16.

In summary, none of Pictometry’s arguments regarding invalidity is persuasive. Pictometry’s motion for summary judgment in this regard is denied, and Geospan’s motion is

granted.

D. Equitable Defenses

As the Court has already ruled that Pictometry does not infringe the '946 Patent, its arguments related to equitable defenses are moot and will not be considered by the Court.

IV. CONCLUSION

Based upon the foregoing, and all the files, records, and proceedings herein, **IT IS HEREBY ORDERED** that:

1. Geospan's Motion for Summary Judgment [Docket No. 182] is **GRANTED IN PART AND DENIED IN PART**;
2. Pictometry's Motion for Summary Judgment [Docket No. 185] is **GRANTED IN PART AND DENIED IN PART**;
3. Count I of the Complaint [Docket No. 1] is **DISMISSED WITH PREJUDICE**;
4. Counts II and III of the Second Amended Counterclaim [Docket No. 94] are **DISMISSED WITH PREJUDICE**; and

5. Pursuant to 28 U.S.C. § 2201, a declaratory judgment that Pictometry does not infringe the '946 Patent shall issue.

LET JUDGMENT BE ENTERED ACCORDINGLY

BY THE COURT:

s/Ann D. Montgomery
ANN D. MONTGOMERY
U.S. DISTRICT JUDGE

Dated: March 31, 2011.